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FAUNISTIC NOTE

The first confirmed record of Mediterranean mantis, *Iris oratoria* (Mantodea: Eremiaphilidae) in Montenegro

Mihailo Vujić[1], Luka Zlatić[1]

1 *HabiProt, Cankareva 9/13, 21000 Novi Sad, Serbia*

Corresponding author: *Mihailo Vujić* (mihailovujic01@gmail.com)

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Abstract

The Mediterranean mantis, *Iris oratoria* is recorded for the first time for the fauna of Montenegro. Two female specimens were collected in Donji Štoj (Ulcinj Municipality) in dry, grassy meadow. The presence of this species is not unexpected in Montenegro, given that it is widespread in Mediterranean region and neighbouring countries (Albania and Croatia).

Keywords

Balkan, diversity, fauna, mantids.

The order Mantodea counts more than 2500 predatory polyneopteran insects, distributed mainly in tropical and subtropical parts of the world. These insects play a very significant ecological role, given that mantids are predators of insects and many other smaller animals, which are considered pests (Patel and Singh 2016).

The Mediterranean mantis, *Iris oratoria* (Linnaeus, 1758) is a mantis species of the family Eremiaphilidae (Schwarz and Roy 2019) and its distribution includes the Mediterranean part of Europe (Spain, Portugal, France, Italy, Cyprus, and the Balkans), North Africa (Morocco, Algeria, Tunisia, Libya, Egypt, Chad), parts of West and South Asia (Turkey, Israel, Lebanon, Syria, Jordan, Iran) (Ramme 1951; Kaltenbach 1963, 1976; Demirsoy 1979; Mukherjee et al. 1995; Çiplak and Demirsoy 1997; Ehrmann 2002, 2011; Battiston et al. 2010; Mohammad et al. 2011). *I. oratoria*

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was introduced in the United States in the 1930s and now has established populations (Maxwell and Eitan 1998).

In the Balkans, this species has been previously registered in Albania, Croatia, Macedonia, Greece, Bulgaria, and Romania (Popov and Chobanov 2004; Battiston et al. 2010; Chobanov and Mihajlova 2010; Kment 2012; Jaskuła 2014; Romanowski and Romanowski 2014; Cazacu 2019). However, in the Balkans, the distribution of this species has not been accurately identified and many authors cited Fauna Europaea (https://fauna-eu.org/) as the source of information about known distribution. Fauna Europaea misrepresents distribution for the former Yugoslavian countries and states the presence of *I. oratoria* in Montenegro and Serbia (including Autonomous Provinces of Vojvodina and Kosovo and Metohija), although there is no reliable data (Heller 2013).

Iris oratoria (Linnaeus, 1758) (Fig. 1A)

Material examined: Montenegro; 2♀♀; Ulcinj Municipality, Donji Štoj (Copacabana Beach); 41.894659°N 19.313257°E; altitude 2 m a.s.l.; 5.9.2021; leg. M. Vujić and L. Zlatić (stored in M. Vujić private collection).

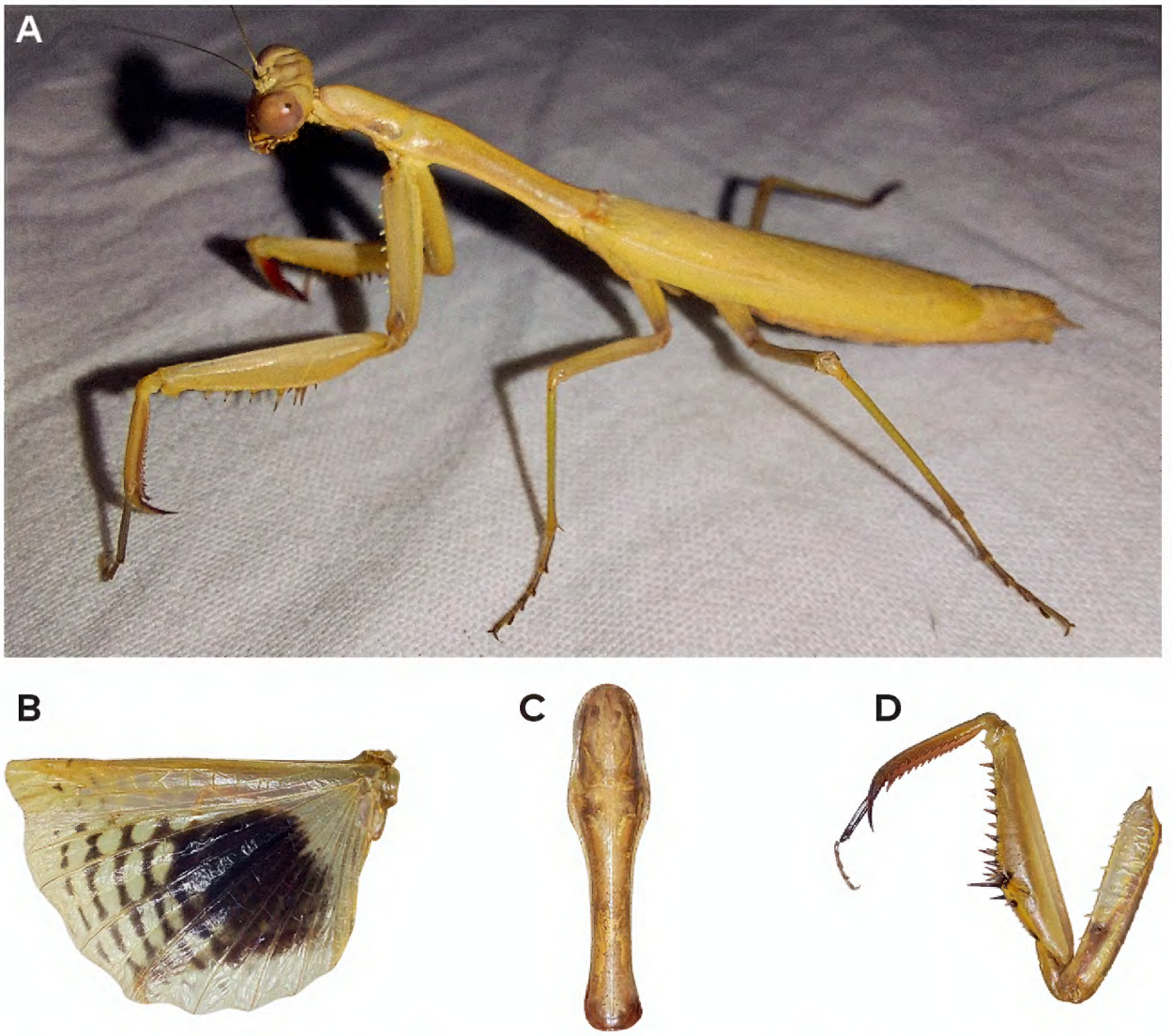

Figure 1. *Iris oratoria* (Linnaeus, 1758), female from Donji Štoj (Ulcinj, Montenegro). **A** habitus; **B** hind wing; **C** pronotum; **D** fore leg (photo: M. Vujić).

Remarks: Two female, ochre colored specimens were collected during the night, in dry grass, on a meadow next to a road. At this locality, *I. oratoria* co-occurs with many mantodean and orthopteran species, e. g. *Ameles decolor* (Charpentier, 1825), *Mantis religiosa* (Linnaeus, 1758), *Bacillus rossius* (Rossi, 1790), *Acrida ungarica* (Herbst, 1786), *Acrotylus patruelis* (Herrich-Schäffer, 1838), *Anacridium aegyptium* (Linnaeus, 1764), *Decticus albifrons* (Fabricius, 1775), *Sepiana sepium* (Yersin, 1854), *Rhacocleis germanica* (Herrich-Schäffer, 1840), *Tylopsis lilifolia* (Fabricius, 1793) etc.

Description of habitat: The edge of a dry, grassy meadow, surrounded by *Rubus* sp. and *Paliurus spina-christi* Mill. (Fig. 2).

Diagnosis: *I. oratoria* can be separated from other similar Euro-Mediterranean mantids by a combination of the following characters: pronotum slender (Fig. 1C); wings: hind wings with characteristic markings (Fig. 1B), fore wings of males exceeding the abdomen, fore wings in female shorter than the abdomen (Fig. 1A); fore legs: coxae with 8–10 spines and series of tubercles along the anterior margin, femora with 5 posteroventral spines and with all spines black only at the tip (Fig. 1D) (Battiston et al. 2010). Post mortem changes can cause discoloration and darkening of femoral spines, giving them the appearance of complete or partial blackness.

Figure 2. Donji Štoj (Ulcinj, Montenegro), the locality where *Iris oratoria* (Linnaeus, 1758) specimens were collected (photo: M. Vujić).

I. oratoria is a widespread Mediterranean species, and its presence in the territory of Montenegro was expected. The finding of two specimens (both females, ochre colored) at the same locality, indicates a probable reproduction and presence of an established population. One of the collected specimens was teneral (exuvia not found). The mantis fauna of Montenegro is not well-studied and further surveys are necessary to gain insight into the real diversity of this group of organisms.

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